LISTING OF CLAIMS

In the Claims:

Please amend the claims in the below-indicated manner. This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (currently amended) An optical integrated circuit, comprising:

at least one waveguide extending axially between first and second ends, each waveguide having a centerpoint centrally located between the first and second ends, the at least one waveguide comprising a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint; ~~and~~

a second waveguide extending axially between first and second ends and having a centerpoint centrally located on the second waveguide between the first and second ends, the second waveguide comprising a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint;

a waveplate intersecting the at least one waveguide at an intersection spaced from the centerpoint, the intersection spaced from the centerpoint of the at least one waveguide by a first distance and the waveplate intersects the second waveguide at an intersection spaced from the centerpoint of the second waveguide by a second distance, the first distance and the second distance are approximately equal, the waveplate intersects the first portions of the waveguides; and

an input lens providing light to the first ends of the waveguides and an output lens receiving light from the second ends of the waveguides.

2. (original) The optical integrated circuit of claim 1, wherein the waveplate intersects the at least one waveguide at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the at least one waveguide.

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (currently amended) The optical integrated circuit of claim ~~4~~ 1, wherein the waveplate intersects the at least one waveguide at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the at least one waveguide, and wherein the waveplate intersects the second waveguide at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the second waveguide.

8. (original) The optical integrated circuit of claim 7, wherein the centerpoints of the waveguides are located on a first line, wherein the intersections of the waveplate with the waveguides are located on a second line, and wherein the first and second lines are generally parallel.

9. (original) The optical integrated circuit of claim 8, wherein the at least one waveguide comprises a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint, wherein the second waveguide comprises a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint, and wherein the waveplate intersects the first portions of the waveguides.

10. (original) The optical integrated circuit of claim 9, wherein the intersections of the waveguides are located on curvilinear portions of the waveguides.

11. (currently amended) The optical integrated circuit of claim ~~4~~ 1, wherein the centerpoints of the waveguides are located on a first line, wherein the intersections of the waveplate with the waveguides are located on a second line, and wherein the first and second lines are generally parallel.

12. (currently amended) The optical integrated circuit of claim ~~4~~ 1, wherein the waveplate intersects the at least one waveguide at an angle of about 80 degrees or more and about 85 degrees or less with respect to the axis of the at least one waveguide, and wherein the waveplate intersects the second waveguide at an angle of about 80 degrees or more and about 85 degrees or less with respect to the axis of the second waveguide.

13. (currently amended) The optical integrated circuit of claim ~~4~~ 1, wherein the intersections of the waveguides are located on curvilinear portions of the waveguides.

14. (original) The optical integrated circuit of claim 1, comprising an arrayed-waveguide grating planar lightwave circuit.

15. (original) The optical integrated circuit of claim 1, wherein the waveplate comprises a half-wave plate.

16. (currently amended) An arrayed-waveguide grating device, comprising:

a base with a plurality of optical paths extending through the base between an input ~~first~~ and an output ~~second~~ optical components, the optical paths individually having midpoints centrally located between the input ~~first~~ and output ~~second~~ optical ~~circuits~~ components, the midpoints of the optical paths located along a line, the plurality of optical paths each comprise a first portion between the input optical component and the midpoint and a second portion between the output optical component and the midpoint;

a waveplate spaced apart from and generally parallel to the line and intersecting the plurality of optical paths, the waveplate intersecting either the first portions of the plurality of optical paths or the second portions of the plurality of optical paths, the waveplate operative to reduce polarization dependence of the arrayed-waveguide grating device.

17. (currently amended) The arrayed-waveguide grating device of claim 16, wherein the waveplate intersects the optical paths at intersections at an angle with respect to the optical paths, wherein the angle is about 70 degrees or more and ~~les~~ less than 90 degrees to reduce back reflection in the arrayed-waveguide grating device.

18. (original) The arrayed-waveguide grating device of claim 16, wherein the waveplate intersects the optical paths at intersections spaced from the midpoints of the optical paths, and wherein the intersections in each of the optical paths are generally equally spaced from the corresponding midpoints.

19. (original) The arrayed-waveguide grating device of claim 16, wherein the waveplate comprises a half-wave plate.

20. (currently amended) A method of manufacturing an optical integrated circuit, comprising:

providing a base having at least ~~one~~ a first and a second waveguide extending axially between a first end coupled to an input lens and a second end coupled to an output lens ~~ends~~ with a centerpoint centrally located between the first and second ends the at least first and second waveguides each comprising a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint, the centerpoints located along a line; and

providing a waveplate in the base intersecting the at least ~~one waveguide~~ first and second waveguides at an intersection spaced from the centerpoint of the at

least ~~one waveguide~~ first and second waveguides and generally parallel to the line, the waveplate intersecting either the first portions of the waveguides or the second portions of the waveguides.

21. (currently amended) The method of claim 20, wherein providing the waveplate comprises locating the waveplate so as to intersect the at least ~~one waveguide~~ first and second waveguides at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the at least ~~one waveguide~~ first and second waveguides.

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22. (currently amended) The method of claim ~~21~~ 20, ~~further comprising providing a second waveguide in the base extending axially between first and second ends and having a centerpoint centrally located between the first and second ends of the second waveguide,~~ wherein providing the waveplate comprises locating the waveplate so as to intersect the at least ~~one waveguide~~ first and second waveguides at an angle of about ~~70~~ 80 degrees or more and less than ~~90~~ 85 degrees with respect to the axis of the at least ~~one waveguide~~ first and second waveguides ~~and to intersect the at second waveguide at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the second waveguide~~.

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23. (new) An optical integrated circuit, comprising:

at least one waveguide extending axially between first and second ends, each waveguide having a centerpoint centrally located between the first and second ends, the at least one waveguide comprising a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint;

a second waveguide extending axially between first and second ends and having a centerpoint centrally located on the second waveguide between the first and second ends, the second waveguide comprising a first portion between the first end and the centerpoint and a second portion between the second end and the centerpoint;

a waveplate intersecting the at least one waveguide at an intersection spaced from the centerpoint, the intersection spaced from the centerpoint of the at least one waveguide by a first distance and the waveplate intersects the second waveguide at an intersection spaced from the centerpoint of the second waveguide by a second distance, the first distance and the second distance are approximately equal, the waveplate intersects the second portions of the waveguides; and

an input lens providing light to the first ends of the waveguides and an output lens receiving light from the second ends of the waveguides.

24. (new) The optical integrated circuit of claim 23, wherein the waveplate intersects the at least one waveguide at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the at least one waveguide, and wherein the waveplate intersects the second waveguide at an angle of about 70 degrees or more and less than 90 degrees with respect to the axis of the second waveguide.

25. (new) The optical integrated circuit of claim 23, wherein the centerpoints of the waveguides are located on a first line, wherein the intersections of the waveplate with the waveguides are located on a second line, and wherein the first and second lines are generally parallel.

26. (new) The optical integrated circuit of claim 23, wherein the waveplate comprises a half-wave plate.